

REMARKS

Claims 1 and 3-8 are pending.

By this Amendment, Claim 1 is amended. Support for the amendments to Claim 1 can be found at least in Figures 6 and 7 of the application as originally filed.

Applicants respectfully submit that no new matter is presented herein.

Double Patenting Rejection

Claim 1 is rejected on the ground of non-statutory obviousness-type double patenting for being unpatentable over Claims 1 and 4 of U.S. Patent No. 7,217,899 to Hidaka et al. (Hidaka).

Applicants enclose herein a properly executed Terminal Disclaimer disclaiming the terminal portion of any patent issuing from the instant application that extends beyond the term of the Hidaka patent.

Accordingly, Applicants respectfully request withdrawal of the rejection.

Claim Rejections -- 35 U.S.C. §102 and §103

Claims 1 and 3-8 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,740,834 to Sueyoshi et al. (Sueyoshi '834); Claims 1 and 3-6 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,075,294 to Van den Boom et al. (Van den Boom) in view of U.S. Patent No. 5,304,967 to Hayashi and Sueyoshi '834; Claims 7 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Van den Boom, in view of Hayashi and Sueyoshi '834 as applied to claims 4 and 5, and further in view of U.S. Patent No. 6,769,154 to Klein et al.

(Klein); and Claims 7-8 under 35 U.S.C. §103(a) as being unpatentable over Sueyoshi '834 as applied to claims 4 and 5, and further in view of Klein.

Applicants respectfully traverse the rejections for at least the following reason(s).

Claim 1 recites a vehicle door outer handle system including, among other features, an operating handle; a pair of electrodes; and a circuit board ***formed of a single plate*** and on which is provided a detection circuit for detecting a change in capacitance between the electrodes, ***wherein***, among opposite faces of the circuit board, ***a component of the detection circuit is mounted on the face of the circuit board that is opposite to the face of the circuit board where the electrodes are patterned***, wherein the electrodes, the circuit board and a ground plate are housed within the operating handle, wherein the electrodes are covered by the ground plate and are patterned on the circuit board, and wherein a covering portion made of synthetic resin covers the ground plate and is also disposed between the ground plate and the electrodes.

Claim 1 recites the circuit board is formed from a single plate. As clearly shown in Figure 6 of the application, the circuit board according to an exemplary embodiment of the invention is formed from a single plate.

Moreover, in addition to the circuit board being formed from a single plate, a pair of electrodes is patterned on one of opposite faces of the single plate circuit board while a component of a detection circuit for detecting a change in capacitance between the electrodes is mounted on the other face of the plate-shaped circuit board.

As shown in Figure 6, components 45a, 45b, 45c of the detection circuit 45 are provided on one face of the single plate circuit board 44. Figure 7 clearly shows a pair of electrodes 43 patterned on the other face of the board 44. With the recited structural arrangement of the noted features of Claim 1, the circuit board having the electrodes and a component of a detection circuit are manufactured to be relatively thinner relative to the industry norm.

Applicants note that in explaining the basis of the rejections of the claims in view of the cited references, the Office Action primarily relies on Sueyoshi '834 and asserts that the electrodes (104) of Sueyoshi '834 are patterned on the circuit board (109) (see page 4, line 5 of the last paragraph of the Office Action).

However, applicants note that Figure 16 of Sueyoshi '834 clearly illustrates the electrodes 104 are associated with the base plate 109 with a distance therebetween, and that they are connected together via two connecting terminals 104b. Moreover, column 8, lines 57-58 of Sueyoshi '834 states that the detection circuit 34 shown in Figure 8 is provided on the base plate 109.

In view of the express teachings of Sueyoshi '834, Applicants respectfully submit that Sueyoshi '834 does not disclose, teach or otherwise suggest the electrodes 104 and detection circuit 34 being provided together on a single plate member since Sueyoshi '834 expressly teaches away from such a structural arrangement. Since Figure 16 teaches that a distance is provided between the plate 109 and the electrodes 104, the electrodes 104 are also not patterned on the base plate 109.

Applicants note the Office Action appears to avoid the inconvenient fact noted above by citing the embodiment of Sueyoshi '834 having the electrodes (104) in justifying the asserted basis of the rejection.

Applicants respectfully note the electrodes (104) illustrated in Figures 15 and 16 of Sueyoshi '834 fail to illustrate the position of the electrodes (104) relative to the detection circuit (34). Moreover, as shown in Figure 7, the detection circuit (34) is provided on the side of the circuit board (32, 109) that is positioned on the outer side of the door (65). Further, the electrodes (104) of Figures 15 and 16, like the electrodes (29), are disposed within the handle (67) on the outer side of the door (65). See column 10, lines 46-48 of Sueyoshi '834.

Put simply, Sueyoshi '834 expressly teaches the detection circuit (34) and electrodes (29, 104) are provided on the same side or surface of the circuit board (29 or 109) relative to each other and is totally silent as to any teaching of the detection circuit (34) and electrodes (29, 104) being provided on opposite sides or surfaces of the circuit board (29, 109).

That is, Applicants respectfully submit Sueyoshi '834 expressly teaches the detection circuit (34) and electrodes (29, 104) are provided on the same face of the circuit board (32, 109) relative to each other and does not disclose, teach or suggest the detection circuit (34), or a component thereof, being provided on an opposing or opposite face of the circuit board (32, 109) relative to the electrodes (29, 104), as is recited by Claim 1.

Accordingly, Applicants respectfully submit that Sueyoshi '834 does not disclose, teach or suggest each and every feature recited by Claim 1.

To qualify as prior art under 35 U.S.C. §102, each and every feature recited in a rejected claim must be disclosed by the applied art. For at least the reasons provided above, Applicants submit that Sueyoshi '834 does not disclose or suggest each and every feature recited by pending Claim 1. Accordingly, Sueyoshi '834 does not anticipate, nor render obvious, the invention recited by Claim 1. Therefore, Applicants respectfully submit independent Claim 1 should be deemed allowable over Sueyoshi '834.

Applicants note the Office Action admits Van den Boom fails to teach or suggest the features of a component of the detection circuit being mounted on a face on the side of the circuit board that is opposite to the face where the electrodes are patterned. Accordingly, Van den boom does not cure or otherwise address the above-described deficiency of Sueyoshi '834.

The Office Action then looks to Hayashi and asserts that such features are discussed in column 8, lines 1-11 of Hayashi. As stated in the February 18 Response, Applicants note the cited passage of Hayashi specifically states:

The interstage circuit board 43 is constituted by a multi-layer circuit board (two-layer), and trimming electrodes 51, 52, and 53 are formed in a thick film pattern on the first layer 43-1 thereof. The trimming electrodes 52 and 53 are formed in one linked-pattern.

On the second layer 43-2 of the interstage circuit board (multi-layer circuit board), the capacitor electrodes 54, 55, and 56 are formed in a thick film conductor pattern, and also the through-holes 57 are formed. The capacitor electrodes 54 and 55 are formed in one linked-pattern.

However, Applicants respectfully submit that the above quoted passage of Hayashi, as well as the corresponding figures relating thereto, merely teach and illustrate, respectively, that a number of electrodes 44-47, 51-56 are mounted on one or opposite faces of a two layered circuit board 43. The cited passage, as well as the remainder, of Hayashi is totally silent as to any teaching or suggestion of a “component” of any detection circuit being mounted on any face of the circuit board 43, let alone a face that is on an opposite side of the circuit board 43.

Applicants note dielectric resonators 41, 42 are provided adjacent to the circuit board 43, but the resonators 41, 42 are merely electrically connected to the electrodes of the circuit board 43 via terminals 48, 49 of the resonators 41, 42, wherein the terminals 48, 49 do not correspond to a component of the detection circuit and are definitely not mounted on the circuit board 43.

Accordingly, Hayashi does not cure or otherwise address the admitted deficiency of Sueyoshi '834 and Van den Boom.

Klein is cited for teaching a holder being provided to hold electric components within a handle main body. As such, Klein, like Hayashi and Van den Boom, fails to cure or otherwise address the admitted deficiency of Sueyoshi '834.

Accordingly. Applicants respectfully submit that Claim 1 is not rendered obvious in view of Sueyoshi '834, Van den Boom, Hayashi, and Klein, either alone or in any combination thereof, and should therefore be deemed allowable.

Claims 3-8 depend from Claim 1. It is respectfully submitted that these dependent claims be deemed allowable for at least the same reason(s) Claim 1 is allowable, as well as for the additional subject matter recited therein.

Withdrawal of the rejections is respectfully requested.

Conclusion


In view of the foregoing, Applicants respectfully requests reconsideration of the application, withdrawal of the outstanding rejections, allowance of Claims 1 and 3-8, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing attorney docket number 107348-00543.**

Enclosure: Terminal Disclosure

Respectfully submitted,



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